

Effects of Preexisting Anxiety and Depression on Postoperative Outcomes in Patients under 30 Years Old following Hip Arthroscopy for Femoroacetabular Impingement Syndrome

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INTRODUCTION:

The use of hip arthroscopy for femoroacetabular impingement syndrome (FAIS) is increasing rapidly. Mental health has been shown to influence postoperative outcomes in orthopedic procedures and increasing attention is being paid to this effect. The purpose of this study is to evaluate the effect of depression and anxiety (DA) on postoperative outcomes following hip arthroscopy for FAIS.

METHODS:

A single institution retrospective observational cohort study of 289 patients age 30 years and younger undergoing hip arthroscopy for FAIS from January 2014-June 2021 was conducted. Univariate statistics were used to assess differences in demographics, operative characteristics and postoperative outcomes; multivariate analysis was used to evaluate risk factors for postoperative complications.

RESULTS:

Patients with DA were more likely to be female (83.3 vs. 55.8%, $p<.001$), older (22.5 vs. 21.3 years, $p=.045$), have an ASA ≥ 2 (73.6 vs. 32.7%, $p<.001$), have diabetes (5.6 vs. 0%, $p=.004$) and GERD (12.5 vs. 0.5%, $p<.001$), undergo bursectomy (13.9 vs. 6.5%, $p=.048$) and IT band release (13.9 vs. 6.0%, $p=.032$), have a longer PACU stay (90.5 vs. 75.1 minutes, $p=.034$) and higher first PACU pain score (5.9 vs. 4.6, $p=.018$), higher rates of postoperative injection (18.1 vs. 9.2%, $p=.041$), any reoperation (13.9 vs. 4.6, $p=.013$ and revision hip arthroscopy ($p=11.1$ vs. 3.7%, $p=.032$). DA was independently predictive of any reoperation (OR=2.841, $p=.049$) and revision hip arthroscopy (OR=3.401, $p=.039$).

DISCUSSION AND CONCLUSION:

Patients with DA undergoing hip arthroscopy for FAIS have increased comorbidities, higher first PACU pain score, longer PACU stay and increased rates of postoperative injection, any reoperation and revision hip arthroscopy. DA is not a deterrent for hip arthroscopy but targeted interventions may be needed to improve outcomes.

Table 1. Demographics and Comorbidities

	No Depression/Anxiety N=217	Depression/Anxiety N=72	Sig.
Female Sex	125 (57.6)	60 (83.3)	<.001
Age	21.3 ± 4.4	22.5 ± 4.5	.045
BMI	21.3 ± 5.0	25.4 ± 4.5	.001
ASA ≥ 2	71 (32.7)	33 (45.8)	<.001
Psych meds	0	48 (66.7)	<.001
Diabetes	0	4 (5.6)	.004*
Asthma	14 (6.5)	9 (12.5)	.180
GERD	1 (0.5)	9 (12.5)	<.001*

*P<.05 in bold; * indicates use of Fisher's exact test

Table 2. Operative and Postoperative Details

	No Depression/Anxiety N=217	Depression/Anxiety N=72	Sig.
Intraoperative Details			
Surgery is revision	16 (7.4)	13 (18.1)	.008
Labral repair	188 (86.2)	68 (94.4)	.385
Labral reconstruction	18 (8.3)	3 (4.2)	.242
Reoperation	206 (94.9)	66 (91.7)	.384*
Revision arthroscopy	78 (35.9)	20 (27.8)	.205
IT band	13 (6.0)	10 (13.9)	.082
OTB	14 (6.5)	10 (13.9)	.048
Gliosis medial	2 (0.9)	2 (2.8)	.260*
Proton release	59 (27.2)	22 (30.6)	.582
Chondroplasty	27 (12.4)	4 (5.6)	.182
Misfracture	17 (7.8)	2 (2.8)	.174*

Postoperative Details			
Minutes in Recovery	75.1 ± 36.1	90.5 ± 49.2	.034
1 st PACU pain score	4.6 ± 3.3	5.9 ± 3.1	.018
Last PACU pain score	4.2 ± 1.6	4.6 ± 2.0	.076
Preop PROMIS	37.3 ± 5.9*	39.3*	.729
3-6 month PROMIS	51.3 ± 8.7	49.9 ± 8.5*	.102
6-12 month PROMIS	46.2 ± 6.9*	45.9 ± 9.8*	.950
Preop HOOS	68.2 ± 12.9*	69.9*	.979
3-6 month HOOS	88.6 ± 12.6*	74.9 ± 22.3*	.079
6-12 month HOOS	75.8 ± 12.0*	84.4 ± 8.3*	.244

*P<.05 in bold; * indicates use of Fisher's exact test; * 7 patients, * 1 patient, * 14 patients, * 5 patients, * 3 patients, * 12 patients, * 6 patients, * 2 patients

Table 3. Postoperative Complications

	No Depression/Anxiety N=217	Depression/Anxiety N=72	Sig.
Postop Injection	20 (9.2)	11 (15.3)	.041
Complications first 90 days	3 (1.4)	2 (2.8)	.601*
Reoperation	10 (4.6)	10 (13.9)	.013*
Subsequent THA	2 (0.9)	1 (1.4)	1.000*
Revision Scope	6 (2.7)	8 (11.1)	.032*
ED visit first 90 days	3 (1.4)	3 (4.2)	.166
Time to last follow up (months)	65.5 ± 10.8	38.4 ± 9.7	.511

*P<.05 in bold; * indicates use of Fisher's exact test

Table 4. Multivariate Logistic Regression Analysis

	Odds Ratio	95% Confidence Interval	Sig.
Outcome: Postoperative Injection			
Female Sex	2.189	0.867-5.529	.087
Age	1.017	0.995-1.037	.689
ASA	1.159	0.569-2.386	.691
BMI	1.003	0.946-1.066	.945
Psych Diagnosis	1.662	0.715-3.863	.238
Outcome: Reoperation			
Female Sex	1.359	0.436-4.236	.597
Age	0.970	0.899-1.041	.362
ASA	1.299	0.520-3.249	.576
BMI	1.049	0.999-1.107	.298
Psych Diagnosis	2.841	1.003-8.046	.049
Outcome: Revision Hip Arthroscopy			
Female Sex	1.627	0.414-6.712	.481
Age	0.888	0.777-1.015	.081
ASA	1.015	0.957-1.082	.878
BMI	1.000	0.898-1.117	.996
Psych Diagnosis	3.401	1.066-10.866	.039

*P<.05 in bold